

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows.

1. (Currently Amended) An insert for a drill bit comprising:
 - a diamond-impregnated insert body; and
 - a thermally stable shearing portion disposed on said diamond-impregnated insert body,
wherein the thermally stable shearing portion comprises thermally stable polycrystalline diamond, and wherein at least a portion of the diamond-impregnated insert body and at least a portion of the thermally stable shearing portion form a leading edge of the insert.
2. (Cancelled)
3. (Previously Presented) The insert of claim 1, further comprising a bonding portion disposed between at least a portion of said diamond-impregnated insert body and said thermally stable shearing portion.
4. (Original) The insert of claim 3, wherein said bonding portion comprises tungsten carbide.
5. (Previously Presented) The insert of claim 1, further comprising an outer layer disposed on said diamond-impregnated insert body.
6. (Original) The insert of claim 5, wherein said outer layer comprises a tungsten carbide layer.
7. (Previously Presented) The insert of claim 1, wherein said diamond-impregnated insert body comprises thermally stable polycrystalline diamond.
8. (Previously Presented) The insert of claim 1, wherein said thermally stable shearing portion is disposed on said diamond-impregnated insert body post-infiltration.
9. (Cancelled)
10. (Cancelled)

11. (Previously Presented) The insert of claim 1, further comprising a wear portion disposed on a surface of said diamond-impregnated insert body.
12. (Previously Presented) The insert of claim 1, wherein said thermally stable shearing portion further comprises a coating.
13. (Original) The insert of claim 12, wherein said coating comprises at least one selected from the group consisting of a titanium based coating, a tungsten based coating, and a nickel based coating.
14. (Previously Presented) The insert of claim 1, wherein the diamond-impregnated insert body comprises coated natural diamond.
15. (Original) The insert of claim 14, wherein at least a portion of the natural diamond is 1 carat in size.
16. (Currently Amended) A drill bit comprising:
a bit body having at least one blade thereon; and
at least one cutting element disposed on the at least one blade, wherein the at least one cutting element comprises a diamond-impregnated insert body;
and a thermally stable shearing portion disposed on said diamond-impregnated insert body, wherein the thermally stable shearing portion comprises thermally stable polycrystalline diamond, and wherein at least a portion of the diamond-impregnated insert body and at least a portion of the thermally stable shearing portion form a leading edge of the insert.
17. (Cancelled)
18. (Currently Amended) A drill bit, comprising:
a bit body; and
a plurality of inserts affixed to said bit body, at least one of said plurality of inserts having a diamond-impregnated insert body and a thermally stable shearing portion disposed on said diamond-impregnated insert body, wherein the thermally stable shearing portion comprises thermally stable polycrystalline diamond, and

wherein at least a portion of the diamond-impregnated insert body and at least a portion of the thermally stable shearing portion form a leading edge of the insert.

19. (Original) The bit of claim 18, wherein a total exposure of said diamond-impregnated insert body to temperatures above 1000° F is greater than a total exposure of said shearing portion to temperatures above 1000° F.
20. (Original) The bit of claim 18, wherein at least a portion of said bit body is diamond-impregnated.
21. (Original) The bit of claim 18, wherein the bit body comprises infiltrated diamond-impregnated tungsten carbide matrix.
22. (Previously Presented) The insert of claim 18, wherein said diamond-impregnated insert body comprises thermally stable polycrystalline diamond.
23. (Previously Presented) The bit of claim 18, further comprising a bonding portion disposed between at least a portion of said diamond-impregnated insert body and said thermally stable shearing portion.
24. (Original) The bit of claim 23, wherein said bonding portion comprises tungsten carbide.
25. (Original) The bit of claim 18, further comprising an outer layer disposed on said diamond-impregnated insert body.
26. (Original) The bit of claim 25, wherein said outer layer comprises a tungsten carbide layer.
27. (Cancelled)
28. (Original) The bit of claim 18, further comprising a wear portion disposed on a surface of said diamond-impregnated insert body.
29. (Original) The bit of claim 18, wherein said shearing portion further comprises a coating.
30. (Original) The bit of claim 29, wherein said coating comprises at least one selected from the group consisting of a titanium based coating, a tungsten based coating, and a nickel based coating.

31.-39. (Cancelled)

40. (Currently Amended) A method of drilling a mixed formation comprising:

contacting a bit with the mixed formation, wherein the bit comprises a bit body; and
a plurality of inserts affixed to said bit body, at least one of said inserts having a diamond
impregnated insert body and a thermally stable shearing portion disposed on said
diamond impregnated insert body, wherein the thermally stable shearing portion
comprises thermally stable polycrystalline diamond, and wherein at least a
portion of the diamond-impregnated insert body and at least a portion of the
thermally stable shearing portion form a leading edge of the insert.

41. (Currently Amended) A composite cutting element for a drill bit comprising:

an abrasive insert body having a mixture of ultra-hard material and a less abrasion
resistant matrix material ~~cemented together~~, wherein the ultra-hard material is
impregnated in the matrix of the less abrasion resistant material; and
a thermally stable shearing element on said insert body, wherein the thermally stable
shearing portion comprises thermally stable polycrystalline diamond, and wherein
at least a portion of the abrasive insert body and at least a portion of the thermally
stable shearing portion form a leading edge of the insert.

42. (Original) The composite cutting element of claim 41 wherein the relative abrasion
resistance of the ultra-hard material and the matrix material vary depending on the formation
compressive strength and abrasivity and also on the size of the ultra-hard material

43. (Original) The composite cutting element of claim 41 wherein the ultra-hard materials
comprises at least one selected from the group consisting of diamond crystals, cubic boron
nitride crystals, polycrystalline diamond or polycrystalline cubic nitride crystals.

44. (Original) The composite cutting element of claim 41 wherein the matrix material consists of
carbides, nitrides, borides or mixtures thereof.

45. (Previously Presented) The composite cutting element of claim 41 wherein the ultra hard
material is diamond crystals and the matrix material is cubic boron nitride crystals cemented

with at least one compound selected from the group consisting of carbides, borides, and nitrides.

46. (Previously Presented) The composite cutting element of claim 41 wherein a diamond concentration and a diamond particle size in the abrasive insert body and the thermally stable shearing element depends on the abrasivity and compressive strength of the formation being drilled.

47. (Previously Presented) The composite cutting element of claim 46, wherein the diamond concentration in the abrasive insert body is selectively varied.